United States Department of Agriculture

Marketing and Regulatory Programs

Animal and Plant Health Inspection Service

The Study of Bison Fetal Disappearance Rate

Addendum to the Revised Environmental Assessment and Confirmation of the Finding of No Significant Impact

January 2003

The Study of Bison Fetal Disappearance Rate

Addendum to the Revised Environmental Assessment and Confirmation of the Finding of No Significant Impact

January 2003

Agency Contact:

Dr. Debra Cox
Staff Veterinarian
National Animal Health Programs
Veterinary Services
Animal and Plant Health Inspection Service
U.S. Department of Agriculture
4700 River Road, Unit 43
Riverdale, MD 20737

Background

In November 2001 an Environmental Assessment (EA) was made available on a proposed study of the rate at which bison fetal carcasses disappear in the West Yellowstone and Gardiner areas of the Greater Yellowstone Area (GYA). Based upon public comments received, the EA was revised and a Finding of No Significant Impact (FONSI) was made in February 2002. Copies of the Revised EA and FONSI are attached for reference.

When the Revised EA and FONSI were issued, the study was proposed to conclude in the spring of 2002. The study was successful in acquiring useful data, and it is realized that an additional year of data would provide some perspective on the variability of scavenging from year to year. Therefore, it is proposed that the study continue for an additional year—through spring 2003.

This addendum to the revised EA has been prepared to satisfy the requirements of the National Environmental Policy Act.

Addendum to the Revised Environmental Assessment

The proposed final year of the study would follow the same protocol as was outlined in the Revised EA. That is, bison fetuses will be obtained from commercial slaughterhouses and tested for *Brucella* and *Camylobacter* spp. and only fetuses from bison that have passed an antemortem veterinary inspection and that are suitable for human consumption will be used. Beginning in March 2003 and continuing into May, four carcasses will be placed in the field each week at both the Gardiner and West Yellowstone sites. Carcasses will be marked with transmitters and will be regularly monitored, as was done last year.

Results from last year's study, as provided in personal communications between research cooperators and Environmental Services staff, indicated that of the fetal carcasses placed during the study, only 2 (less than 3%) could not be accounted for through the monitoring that was done: one site in the West Yellowstone area was purposefully disrupted by human encroachment and the other carcass disappeared from the Gardiner site without transmitter signals or other evidence of its fate. Preliminary analysis of results indicates the mean number of days until fetuses were scavenged was 13.5 days for West Yellowstone and 15.8 days for the Gardiner site. All carcasses (except for the previously mentioned one) placed in West Yellowstone were consumed by scavengers. At the Gardiner site, 15.6% of the carcasses were not scavenged, but decomposed into the landscape. Most fetuses (86%) were moved at least some distance from where they were placed, with the mean distance moved being 1,288 feet. The maximum distance a fetal carcass was moved was more than 2 miles, and about one-third of the carcasses were moved 0.2 miles or more.

Last winter, no adverse impacts were noted to wildlife or the environment from the study. This year's proposed study will be similar to last year's; therefore, no adverse impacts are expected.

Confirmation of FONSI

Based on the preliminary results of the study in 2002, a continuation of the work in 2003 is unlikely to result in any significant impact to the environment or wildlife in the GYA. It is therefore concluded that the continuance of the study in 2003 will likely have the same result. The FONSI is thus confirmed for continuance of the project in 2003.

/s/ 01/31/03

W. Ron DeHaven
Deputy Administrator, Veterinary Services
Animal and Plant Health Inspection Service

Date

United States Department of Agriculture

Marketing and Regulatory Programs

Animal and Plant Health Inspection Service

Proposed Study for Bison Fetal Disappearance Rate

Revised Environmental Assessment

February 2002

Proposed Study for Bison Fetal Disappearance Rate

Revised Environmental Assessment February 2002

Agency Contact:
Dr. Valerie Ragan
Senior Staff Veterinarian
National Animal Health Programs
Veterinary Services
Animal and Plant Health Inspection Service
U.S. Department of Agriculture
4700 River Road, Unit 43
Riverdale, MD 20737

Table of Contents

I. Purpose of and Need for the Proposed Action

A. Introduction

The U.S. Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Veterinary Services (VS) is proposing to conduct a research study to determine the disappearance rate of bison fetuses in the environment of the Greater Yellowstone Area (GYA). Investigators with Montana's Department of Fish, Wildlife and Parks, and Department of Livestock, as well as the U.S. Department of the Interior's (USDOI) U.S. Geological Survey, Biological Resources Division, and USDA's Agricultural Research Service (ARS) will collaborate with APHIS on the study. This environmental assessment (EA) provides an analysis of the potential impacts to the human environment from the study. The study involves the use of disease-free tested bison fetuses, obtained from commercial slaughterhouse sources, that will be strategically placed in areas outside Yellowstone National Park (YNP) where bison are known to exit the Park.

Bison, a part of the esthetic, cultural, and natural environment of YNP, are revered by American Indians and other groups and organizations who have expressed concerns about impacts to bison in and around YNP in the past. Recreationists, bison protection advocates, and State and Federal Government employees may participate in activities in some areas where the studies will be conducted. Grizzly bears and other wildlife species are known to inhabit these areas. VS has prepared this EA to comply with the National Environmental Policy Act of 1969 (42 United States Code 4321–4347) and its implementing regulations and procedures.

B. Background

VS enforces many Federal laws and regulations that serve to prevent, detect, and eliminate animal diseases in the United States. These laws and regulations provide the basis for VS' mission to protect and improve the health, quality, and marketability of our Nation's animals by preventing, controlling, and/or eliminating animal diseases and monitoring and promoting animal health and productivity (USDA, APHIS, VS, 2001).

Brucellosis is one of the diseases that VS is striving to eliminate. Brucellosis is a contagious bacterial disease that affects cattle, bison, elk, and other animals and humans, too. The disease is caused by bacteria of the genus *Brucella*. In cattle and bison, the specific disease organism of concern is *Brucella abortus*. In infected cattle and bison, the disease localizes in certain lymph nodes, reproductive organs, and/or the udder, causing abortion in dams and systemic effects in both male and female animals. Spread of the disease occurs when bacteria are shed in milk, an aborted fetus, afterbirth, or other reproductive tract discharges and are ingested by a susceptible animal. Cattle, like bison, are social animals and will sniff and lick a newborn calf, the afterbirth, and even an aborted fetus. This behavior provides an avenue for the disease to spread if *Brucella* organisms are present.

Great strides have occurred since the inception of brucellosis elimination efforts in the United States. Testing of cattle in 1957 found 124,000 U.S. herds affected by brucellosis. Currently, brucellosis eradication from livestock in the United States is near completion, and livestock in the areas surrounding YNP are brucellosis-free. However, brucellosis infection is known to occur in some bison in YNP. Therefore, the prevention of the spread of brucellosis to livestock from bison in and around YNP continues to be an issue of concern.

Often during winter and spring, bison migrate from YNP into Montana. Migrating bison use areas that include national forest system lands where cattle graze seasonally under Federal permits and private lands where cattle may graze on a year-round basis. Generally cattle grazing occurs between the beginning of June and mid-November. The migration of brucellosis-infected bison outside YNP presents a risk of spreading the disease to cattle that use lands adjacent to YNP. Federal and State agencies seek to minimize the risk of brucellosis transmission from bison to livestock. Land managers generally accomplish this by trying to maintain a 30- to 60-day period between the end of bison use and beginning of cattle use in an area.

C. Purpose of and Need for the Study

The purpose of the proposed study is to acquire information that will help Federal and State agencies to improve their ability to prevent the spread of brucellosis from bison to cattle. Brucellosis causes abortions in bison and cattle. The aborted fetuses are believed to serve as a source of *Brucella abortus* organisms until the fetuses are consumed by scavengers or until the

Brucella is killed by adverse environmental conditions. Bison that leave YNP and aborted bison fetuses are potential sources for spreading the brucellosis organisms. Thus, there is a need to determine the length of time that a bison fetus could remain in the environment in the GYA as a potential source for brucellosis transmission. More research is needed to determine the risk of brucellosis transmission between bison and cattle. The research on the rate of fetal disappearance is supported in the Joint Bison Management Plan within the Record of Decision (USDOI and USDA, 2000a), agreed to by the USDOI, National Park Service, and USDA, U.S. Forest Service and APHIS. The study will comply with Step 1 of the Joint Bison Management Plan. As stated in the Plan, the agencies will conduct research in the western and northern boundary areas regarding the rate of fetal disappearance. VS, with the cooperation of other Federal and State agencies, is proposing to conduct this research. The results will be used in future efforts to reduce the risk of brucellosis transmission from bison to cattle while conserving free-ranging bison.

II. Alternatives Considered

A. No Action

The No Action alternative would result in no study. The purpose of the proposed study is to determine the length of time that bison fetuses might be expected to remain in the environment in the GYA as a potential source of brucellosis. Without this study, i.e., acceptance of the No Action alternative, managers would have to rely upon general information or information specific to other areas, such as that gathered by Cook (1999), regarding longevity of carcasses in the environment, rather than on information that is specific to the GYA environment or on the results of a pilot study conducted in 2001 that was found to have certain shortcomings. The 2001 pilot study placed bovine fetuses on private lands and within YNP to acquire information representative of the disappearance of bison fetuses. It was determined that the placement of bovine fetuses in areas far removed from bison herds (and from predators that might shadow bison herds) was not representative of natural conditions. A further concern was that the use of bovine fetuses might create preferential predation on domestic livestock by some predators. The use of general information is also unlikely to be representative of the GYA because fetus longevity would be expected to be highly variable geographically, depending on the size and composition of an area's scavenger population. Reliance on such

generalized information could result in less than ideal management decisions being made regarding bison in the GYA.

B. Proposed Study

The study to examine how long bison fetuses remain in the environment before they deteriorate or are scavenged will be conducted in territory in the West Yellowstone and Gardiner areas that bison may frequent. Bison fetuses for use in the study will be obtained from commercial slaughterhouse sources and tested for *Brucella* spp. and *Campylobacter* spp. prior to the study. In addition, the fetuses will only be obtained from bison that have passed an antemortem veterinary inspection and which are suitable for human consumption. Stockpiled frozen fetuses, with fetal membranes and fluids, will be defrosted in utero before they are transported to the study sites in sealed plastic bags. On site, the bag and uterus will be incised and the fetus and placenta removed and inspected for abnormalities. All materials will be handled with rubber gloves. If fetal or placental lesions are noted, the fetus and placenta will be bagged with the uterus and removed for incineration. Fetuses, placentas, and parturition fluids that are determined to be free of lesions or abnormalities will be placed at the sites.

For 11 weeks starting in March 2002, the fetuses will be placed at a rate of up to 4 per week in each of 2 separate areas where bison egress YNP. The fetuses will be closely monitored to determine how long they are available to scavengers. Key components of the proposed study include the following:

- Using bison fetuses to mimic natural conditions;
- Coordinating placement of fetuses with other State and Federal agencies;
- Placing fetuses on national forest lands and private lands in areas where bison are known to egress YNP during winter and spring months, to mimic natural conditions;
- Placing fetuses in a different location each week so that scavengers and predators will not become conditioned to the sites;
- Using trained observers with binoculars and spotting scopes at observation points approximately 50 meters away from the study sites and motion-sensitive radio transmitters to monitor the sites; and
- Ensuring that observers work in pairs and have been trained in bear avoidance techniques when bear activity is likely in the area.

Data, such as type of scavengers and distance fetuses are moved, will be collected and analyzed in a research report.

C. Proposed Study With Alteration

This alternative would consist of using bovine fetuses instead of bison fetuses for the study. This alternative was considered and rejected. It cannot be assured that bison fetuses and bovine fetuses will disappear at the same rate in the GYA. In fact, Green *et al.* (1997) found that grizzly bears consumed bison carcasses at a disproportionately greater frequency than other carcasses. The use of bison fetuses will not result in any impact on the bison populations because excess bison fetuses are currently available at slaughterhouses. Therefore, it is logical to use bison fetuses rather than bovine fetuses. In addition, there is concern that the use of bovine fetuses (or other fetuses of normally domestic animals) could result in the conditioning of scavengers/predators to preferentially choose to feed on domestic livestock. The risk of conditioning scavengers/predators to livestock is not acceptable when bison are available. Therefore, this alternative has been rejected from further consideration.

III. Environmental Impacts of Alternatives

A. No Action

The proposed action is designed to determine how long a bison fetus remains in the environment as a potential source of *Brucella* organisms before it deteriorates or scavengers consume it. The study results will provide a more complete understanding of the transmission of brucellosis in bison, which should facilitate efforts to develop a bison management program as outlined in the Record of Decision (USDOI and USDA, 2000a). A lack of understanding about this aspect of brucellosis transmission could hinder efforts to prevent transmission of the disease to domestic animal populations and place wildlife, domestic animals, and humans at risk.

B. Proposed Action

The potential impacts to the environment of the proposed action are expected to be insignificant. Because fetuses for use in this investigation would be obtained solely from pregnant bison cows already planned for slaughter by commercial sources, no bison will be slaughtered for the express purpose of providing fetuses for this investigation. Therefore, the proposed study would have no effect on YNP bison populations.

The fetus placement in the field is not expected to significantly alter the food supply of area scavengers. The addition to the food supply of 4 bison fetuses per week, for 11 weeks, in each of 2 separate areas, is not significant compared to the existing food supply in that area. Thus, no change in the number of scavengers in the area would be expected. Moreover, since the fetus placements will not occur in the same location each week, the scavengers are not expected to become conditioned.

Finally, the bison fetuses will not serve as a source of *Brucella* or other disease organisms. The fetuses will be obtained only from bison that have passed an antemortem veterinary inspection and which would be suitable for human consumption. Prior to deployment, the fetus will have been tested for *Brucella* spp. and *Campylobacter* spp. Also, at the study site when the uterus is opened, the fetus and placenta will be checked for abnormalities. If fetal or placental lesions are found, the fetus and placenta will be bagged with the uterus and removed for incineration.

IV. Special Considerations

A. Endangered Species

1. Potential Impact to Grizzly Bears in GYA

The grizzly bear, once found over most of western North America, is listed as a threatened species. GYA and YNP, with about 200 grizzlies, are protected sanctuaries for much of the grizzly bear population remaining in the lower 48 States. Grizzly bears will eat meat whenever it is available, and, from March through May, ungulates (mostly elk and bison) are the most important foods in the grizzly bear's diet. In the proposed study, bison fetuses will be placed in the wild in close proximity to bison migration areas so as to mimic the natural conditions under which bison egress YNP.

Observation and monitoring of the bison fetuses, using radio transmitters, spotting scopes, and binoculars from a distance of about 50 meters, will provide information on how long carcasses remain in the wild and what species of scavengers/predators consume them. This information, specific to the GYA, will be useful in developing bison management plans in the GYA. The addition of bison fetal carcasses to the environment will negligibly increase the natural food base available to grizzly bears in the local area. This increase is unlikely to result in a subsequent increase in grizzly bear presence in the area because the increase in food supply will be slight and of short-term duration. The radio transmitters and ear tags used to mark and monitor carcasses have been used in other studies without incident; therefore, there is no reason to believe that harm will come to any scavengers if they chew these items (J. Rhyan, pers. comm., 2002). Because of this and the fact that all bison fetal carcasses used will be certified as free of *Brucella* spp. and *Campylobacter* spp. and will have been inspected for evidence of other diseases (and discarded if such evidence were found), the proposed study is not expected to result in any adverse impact on grizzly bears in the GYA.

2. Potential Impact to Other Endangered Species in GYA

There are approximately 17 species of animals listed as threatened and endangered within the GYA. The ones of primary concern are the bald eagle, gray wolf (a reintroduced species), Canada lynx, and as mentioned previously, the grizzly bear. As cited in the Biological Assessment for the Interagency Bison Management Plan for the State of Montana and Yellowstone National Park (USDOI, NPS, 2000), bald eagles are sensitive to human activities, including recreational activities, research, and resource and urban development. Although bald eagles are sensitive to human activities, they do appear to acclimate to some activities occurring at predictable frequencies, intensities, and time limits. In the GYA, gray wolves are known to feed on live and dead elk, deer, bison and smaller mammals. Gray wolves are believed to play a beneficial role in removing sick or inferior animals from a herd through predation. The Canada lynx is a secretive animal for which there is no reliable population estimate for any region of the country, including the GYA. Canada lynx will not prey on bison, but may consume bison as carrion with other existing members of the carnivore and scavenger community.

The proposed study would slightly increase the number of available bison carcasses, which are potential sources of food for scavengers/predators such as the bald eagle, Canada lynx, and gray wolf. However, the increase in food supply will be negligible compared to the overall food base available

and will be of short-term duration. The radio transmitters and ear tags used to mark and monitor carcasses have been used in other studies without incident; therefore, there is no reason to believe that harm will come to any scavengers if they chew these items (J. Rhyan, pers. comm., 2002). Because of this and the fact that all bison carcasses will be free of *Brucella* spp. and *Campylobacter* spp. and will have been inspected for evidence of other diseases (and discarded if such evidence were found), implementation of the proposed action is not expected to adversely impact endangered and threatened species in the GYA.

3. Endangered Species Act

This proposed research project was contemplated at the time the Bison Management Plan (USDOI and USDA, 2000b) was developed. It was, however, not specifically mentioned in the Biological Assessment (BA) (USDOI, NPS, 2000) prepared for the Plan. Therefore, the USDOI's U.S. Fish and Wildlife Service (FWS) advised APHIS to prepare a separate BA for the proposed study. The BA has been completed and submitted to FWS. The BA concluded that the proposed study was not likely to adversely affect the grizzly bear, bald eagle, gray wolf, or Canada lynx. APHIS is awaiting concurrence from FWS on the finding. Indications are that it is forthcoming. The study will not begin until concurrence has been received.

B. Social Issues

1. American Indian Concerns

Bison, commonly referred to as American buffalo, are sacred to American Indians and are an important part of their heritage. To American Indians, bison represent their spirit and remind them of how their lives were once lived, free and in harmony with nature. The InterTribal Bison Cooperative (ITBC) was formed in 1990 to coordinate and assist tribes in returning bison to American Indian lands (ITBC, 2001). Their goal is to establish healthy bison populations on tribal lands in an effort to reestablish hope and help heal the spirit of both the American Indian people and the bison. The ITBC is a tribal organization committed to reestablishing bison to American Indian lands in a manner that promotes cultural enhancement, spiritual revitalization, ecological restoration, and economic development.

In the long term, this study may support the goals and efforts of the ITBC by contributing information that may be useful in assisting land managers to produce healthier bison. The more immediate use of the information will contribute to ongoing efforts of area land managers to reduce the risk of brucellosis transmission while permitting free-ranging bison in the GYA.

The study will not result in an increase in the number of bison slaughtered because all fetuses will be obtained from commercial bison already slated for slaughter.

2. Additional Statutory Considerations

The placement of fetuses in the environment on federally managed and private lands requires consideration of various Federal, State, and local statutes. Through cooperation with other agencies, including USDOI's U.S. Geological Survey, Biological Resources Division, USDA's Forest Service, and the Montana Department of Fish, Wildlife and Parks and Department of Livestock, APHIS will ensure that the study sites will not occur on cultural or historical sites and will not adversely impact State-listed endangered and threatened species or natural resources, including water quality. APHIS also will ensure that any required permits needed to conduct the study, e.g., for transport of animal tissues and use of Federal lands, are obtained from the appropriate agencies.

3. Bison Protection Advocates

In addition to the ITBC, animal rights groups, environmental organizations, and individuals advocate the protection of bison in and around YNP. One such group, the Buffalo Field Campaign (BFC), strongly opposes the slaughter of bison and any other means of controlling or managing the free-ranging bison in the GYA (BFC, 2001). The BFC believes that if bison are going to survive into the future as a genetically intact species, it is imperative that wild, free-ranging bison herds are allowed to grow and reproduce in a natural environment. The BFC is the only group working in the field every day to stop the slaughter and hazing of bison in the GYA. Volunteers watch and document the daily movements of bison outside YNP and protect them from the hazing, capturing, and killing operations performed by the Montana Department of Livestock and cooperating agencies.

The proposed study will not result in an increase in the number of slaughtered bison. This study will only use fetuses obtained from commercial bison already slated for slaughter. The information gained from this study will contribute to ongoing efforts on the part of area land managers to reduce the risk of brucellosis transmission while permitting free-ranging bison in the GYA.

4. Secondary Impacts

The study will start during the later stages of winter (early March) when winter recreational activities, such as cross-country skiing and snowmobiling, are beginning to decrease. Winter recreation normally ends in early March in the Gardiner, MT, area and in early April in the West Yellowstone, MT, area (White, pers. comm., 2002). A fetus placement

site will be obvious to passers by and will be easily avoidable for recreationists, serving as an obstacle for only a short period of time. Impacts on recreation, including snowmobiling, would be minimal because the scope of the investigation is relatively small and fetus placements will not occur in the same location each week.

The placement and monitoring of fetuses will result in a slight increase in the number of vehicles and people present in both the West Yellowstone and Gardiner areas during the 11 weeks the study will be conducted. Monitoring of fetus placement sites will be achieved primarily using motion-sensitive radio transmitters and by personnel approaching the sites on foot and observing with spotting scopes and binoculars from approximately 50 meters at least every 2 days. These activities are not expected to adversely impact the area ecosystems.

Any esthetic effects as a result of the fetus placement are expected to be negligible because the study will occur during the later stages of winter, when human presence in the area is likely to be minimal.
As stated previously in section IV.A. Endangered Species, the increase in the natural food base available to grizzly bears in the study area will be slight and of short duration and most likely will not result in a subsequent increase in grizzly bear presence. Most bears hibernate during the winter and their denning habits generally place bears in areas away from the winter recreational use sites (USDOI, NPS, 2000). As grizzly bears leave their wintering dens in April, the study fetuses, depending upon their location, may attract some bears. However, according to USDOI, NPS (2000), carcasses from winter-killed bison located near sites of human activity may go unused by grizzly bears, and winter-killed bison carcasses located farther away from activity may be more attractive to bears. This same activity pattern would be expected during the proposed study, further reducing the likelihood of any appreciable impact to recreationists.

As a safety precaution, personnel involved in monitoring will conduct study work in pairs when grizzly bears are known to be present. They also will be trained to safely respond to potential bear interactions and will be armed with pepper spray. Recreationists are unlikely to experience significant increase in grizzly bear encounters because the fetal carcasses will be placed during the later stages of winter when human presence is likely to be minimal and placement will be coordinated with the U.S. Forest Service to avoid trails and other areas that may be preferred by recreationists. Also, fetus placement locations will not be the same from week to week during

the study. Therefore, bears will not be conditioned to associate food with the sites selected for fetal carcass placement. If bears are found near fetus placement sites, it can be considered a random occurrence unrelated to the proposed study.

V. List of Agencies and Persons Consulted

Glenn Plumb
Supervisory Wildlife Biologist
Bison Management Office
National Park Service, USDOI
Yellowstone National Park, WY

David C. Devours
Wildlife Biologist
Hebgen Lake Ranger District
U.S. Forest Service, USDA
West Yellowstone, MT

Jack Rhyan
Senior Staff Veterinarian
National Wildlife Research Center
U.S. Department of Agriculture
Fort Collins, CO

Ann Vandehey
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
U.S. Department of the Interior
Helena, MT

Kevin Frey
Grizzly Bear Management Specialist
Montana Department of Fish, Wildlife and Parks
Region 3
Bozeman, MT

Keith Aune
Wildlife Laboratory Supervisor
Montana Department of Fish, Wildlife and Parks
Bozeman, MT

VI. References

BFC, 2001. Buffalo Field Campaign. 2001. BFC web site. URL at: http://www.wildrockies.org/Buffalo/. Accessed October 2001.

Cook, W.E., 1999. Brucellosis in elk: studies in epizotiology and control. Ph.D. thesis, Dept. Zoology and Physiology, Univ. of Wyoming. 183 pp.

Greene, G.I., Mattson, D.J., and Peek, J.M., 1997. Spring feeding on ungulate carcasses by grizzly bears in Yellowstone National Park. J. Wildlife Management 61(4):1040–1055.

ITBC, 2001. InterTribal Bison Cooperative. 2001. ITBC web site. URL at: http://www.intertribalbison.org/main.asp?id=1. Accessed October 2001.

Rhyan, J., 2002. Personal communication via telephone conference with K. Dial, J. Edmundson, V. Ragan, and K. White, Riverdale, MD. Jan. 25, 2002.

USDA, APHIS, VS, 2001. Veterinary Services mission statement on the Internet. URL: http://www.aphis.usda.gov/vs/vs_mission.htm. Last updated March 5, 2001. Accessed October 2001.

USDOI and USDA, 2000a. U.S. Department of the Interior (USDOI), National Park Service, and the U.S. Department of Agriculture (USDA), U.S. Forest Service and Animal and Plant Health Inspection Service. Record of Decision for Final Environmental Impact Statement and Bison Management Plan for the State of Montana and Yellowstone National Park. December 20, 2000. Authorized and approved by the U.S. Department of the Interior, National Park Service and the U.S. Department of Agriculture, U.S. Forest Service and Animal and Plant Health Inspection Service.

USDOI and USDA, 2000b. U.S. Department of the Interior (USDOI), National Park Service, and U.S. Department of Agriculture (USDA), Forest Service. Final Environmental Impact Statement for the Interagency Bison Management Plan for the State of Montana and Yellowstone National Park. Vol. 1. August 2000.

USDOI, NPS, 2000. Biological Assessment for the Interagency Bison Management Plan for the State of Montana and Yellowstone National Park. Yellowstone National Park, Wyoming. March 15, 2000.

White, K., 2002. Telephone calls to Chambers of Commerce for Gardiner, MT, and West Yellowstone, MT. Feb. 7, 2002.

Finding of No Significant Impact for the Proposed Study for Bison Fetal Disappearance Rate, Revised Environmental Assessment, February 2002

The U.S. Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Veterinary Services (VS) prepared an environmental assessment, Proposed Study for Bison Fetal Disappearance Rate, to comply with the National Environmental Policy Act of 1969 (NEPA), as amended (42 United States Code 4321 *et seq.*), the Council on Environmental Quality regulations for implementing the procedural provisions of NEPA (40 Code of Federal Regulations (CFR) 1500–1508), the USDA regulations implementing NEPA (7 CFR part 1), and APHIS' NEPA Implementing Procedures (7 CFR part 372).

In November 2001 the environmental assessment was distributed to over 170 names and addresses of the potentially interested public, including individuals, numerous American Indian groups and tribal representatives, animal protection groups, and environmental groups. A 30-day comment period ensued and 173 comment letters and e-mails were received. Based on these comments, the environmental assessment was revised in February 2002. The revised environmental assessment (EA) is referred to throughout this document.

Information resulting from the study will provide valuable information that will help Federal and State agencies to learn more about the potential for brucellosis transmission from bison to cattle and to improve their ability to prevent this path of brucellosis transmission. The EA, incorporated by reference, is available through the Internet at http://www.aphis.usda.gov/ppd/es/vsdocs.html and from the following office:

U.S. Department of Agriculture
Animal and Plant Health Inspection Service
Veterinary Services, NAHPS
4700 River Road, Unit 36
Riverdale, MD 20737–1231

The EA analyzed the alternatives of (1) No Action, (2) Proposed Study, and (3) Proposed Study With Alteration. Based on the information presented in the EA, I have selected Alternative 2, Proposed Study, as the preferred alternative because of its ability to achieve the study's objective in a way that will not adversely impact endangered or threatened species, other wildlife, human health or safety, or the environment. In addition, the study will not infringe upon the cultural or treaty rights of American Indians. I base this finding on the following information.

In complying with the Endangered Species Act of 1973 (16 U.S.C. 1531 *et seq.*), the EA analysis considered the potential for environmental consequences of the proposed study on federally listed endangered and threatened (E&T) species, namely the grizzly bear, gray wolf, bald eagle, and Canada lynx, and has determined that the study will not adversely affect E&T species. A Biological Assessment (BA) was prepared to consider the potential for adverse impacts from the proposed study on these species. The BA concluded that the proposed study is not likely to adversely affect E&T species. VS will work with a U.S. Department of the Interior grizzly bear specialist and the U.S. Forest Service in the selection of the study sites. This will ensure that bison fetuses will be placed away from trails and paths to prevent the potential for recreationists and others to encounter bears that might scavenge fetuses. Workers involved in the study will monitor fetuses from a distance of about 50 meters using binoculars

and spotting scopes. Workers also will be trained to safely respond to potential bear interactions and will be armed with pepper spray. When grizzly bears are known to be present, workers will work in pairs. Thus, the potential for human and bear interaction is negligible.

In addition to E&T species, the proposed study will not have an adverse effect on wildlife in the planned study areas. The bison fetuses used in the study will be obtained in utero from commercial slaughterhouses. They will be obtained from bison cows, sent to slaughter from commercial sources, that pass an antemortem veterinary inspection and that are fit for human consumption. Before the fetuses are placed at the study sites, they will be cultured for *Campylobacter* spp. and *Brucella* spp. They also will be visually inspected for lesions or other abnormalities. If problems with the fetuses are found, they will not be used but will be placed into bags and removed for incineration. These precautions will be taken to ensure that healthy fetuses will be used so that unsuspected diseases are not transferred to wildlife.

Based on the parameters involved in the selection and placement of study sites as noted above for E&T species, the remote observation of these sites, and precautions in handling fetuses, impacts to humans, both workers involved in the study and recreationists, will be negligible.

The EA analysis considered social issues, especially as they relate to American Indian cultural issues and to individuals and groups that advocate protection for free-ranging bison inside or outside of Yellowstone National Park (YNP). The fetuses used for the study will be obtained from bison that have been sent to commercial slaughterhouses for slaughter. The proposed study will not adversely affect free-ranging bison or American Indian cultural practices or treaty rights.

The proposed study will not impact the environment, including water quality. VS will ensure that at the conclusion of the study any remaining fetuses or parts of fetuses will be removed and incinerated according to safe laboratory practices. VS also will obtain any required permits for transporting the bison fetuses or using federally managed lands.

I have reviewed and considered all comments on the EA. After thorough and careful consideration of the comments, I conclude that the proposed study will not significantly impact the environment, including E&T species, other wildlife, and human health and safety, and will not infringe upon American Indian cultural practices or treaty rights.

/s/ 2/22/02

John R. Clifford
Acting Deputy Administrator
Veterinary Services

Date